

## **ABSTRACT**

Electrical-optical signal conversion for an automated storage system. In an exemplary implementation, an automated storage system comprises a plurality of storage cells for removable hard disk drives and a backplane including at least one electrical connection to connect the removable hard disk drives to the backplane. Transfer robotics are operable to access the removable hard disk drives in the storage cells and electrically connect the removable hard disk drives to the backplane via the at least one electrical connection. A backplane interface is operable to convert electrical data signals from the removable hard disk drives electrically connected at the backplane to optical signals for delivery to a system controller.